

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/23120

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12P7/02 C07C29/17 C07C35/12 C07C35/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12P C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BEILSTEIN Data, WPI Data, PAJ, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| X          | M.S. VAN DYK, ET AL.: "Hydroxylation of (+)limonene, (-)alpha-pinene and (-)beta-pinene by a Hormonema sp." BIOTECHNOLOGY LETTERS, vol. 20, no. 4, April 1980 (1980-04), pages 431-436, XP008024077 KLUWER ACADEMIC, DORDRECHT, NL ISSN: 0141-5492 cited in the application | 20                    |
| A          | page 434, left-hand column<br>-----<br>-/--   | 1                     |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

'A' document defining the general state of the art which is not considered to be of particular relevance

'E' earlier document but published on or after the international filing date

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'O' document referring to an oral disclosure, use, exhibition or other means

'P' document published prior to the international filing date but later than the priority date claimed

'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

'&' document member of the same patent family

Date of the actual completion of the international search

19 December 2003

Date of mailing of the international search report

05/01/2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| A          | <p>F. KARP, ET AL.: "Monoterpene biosynthesis: specificity of the hydroxylations of (-)-limonene by enzyme preparations from peppermint (<i>Mentha piperita</i>), spearmint (<i>Mentha spicata</i>), and perilla (<i>Perilla frutescens</i>) leaves" ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, vol. 276, no. 1, January 1990 (1990-01), pages 219-226, XP001062113 ACADEMIC PRESS, NEW YORK, NY, US ISSN: 0003-9861 cited in the application page 224, left-hand column</p> | 1,20                  |
| A          | <p>US 6 083 731 A (R.B. CROTEAU, ET AL.) 4 July 2000 (2000-07-04) cited in the application figure 2</p>  | 1,20                  |

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| Patent document<br>cited in search report |   | Publication<br>date |    | Patent family<br>member(s) | Publication<br>date |
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| US 6083731                                | A | 04-07-2000          | AU | 8147898 A                  | 04-01-1999          |
|   |   |                     | EP | 1017792 A1                 | 12-07-2000          |
|   |   |                     | WO | 9859042 A1                 | 30-12-1998          |
|   |   |                     | US | 6194185 B1                 | 27-02-2001          |
|   |   |                     | ZA | 9804820 A                  | 04-01-1999          |
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